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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,118

05/16/2005

Karl Barth

P05,0168

3622

26574 7590 01/23/2008  
SCHIFF HARDIN, LLP  
PATENT DEPARTMENT  
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EXAMINER

LEWIS, CHERYL RENE A

ART UNIT

PAPER NUMBER

2167

MAIL DATE

DELIVERY MODE

01/23/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

m/v

<b>Office Action Summary</b>	Application No. 10/535,118	Applicant(s) BARTH, KARL	
	Examiner Cheryl Lewis	Art Unit 2167	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This office action is in response to the applicants' response received on October 29, 2007.
2. Claims 13-17 are presented for examination.
3. The applicants have amended claim 13. The applicants have not cancelled or introduced any new claims
4. Applicants' arguments with respect to claims 13-17 have been fully considered but they are not deemed to be persuasive.

### *Remarks*

5. The 35 USC 101 rejection cited in the office action dated July 27, 2007 is hereby withdrawn.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 13-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kaufman et al. (Patent No.: 7133041 B2 filed February 26, 2001, hereinafter Kaufman).

8. Regarding Claim 13, Kaufman teaches an apparatus and method for volume processing and rendering.

The method and associated system for volume processing and rendering as taught or suggested by Kaufman includes:

generating a second volume data (col. 4, lines 32-50) set in which the volume elements (col. 4, lines 32-50) of the first volume data set are at least one depth-dependently (col. 4, lines 32-50) modulated and coded parallel to a main observation direction along a coordinate axis (col. 26, lines 5-13) of the first volume data set (col. 4, lines 32-50); applying a volume rendering to the second volume data set (col. 3, lines 41-54); and outputting, on a display, an image based on the second volume data set (col. 3, lines 41-54 and 61-66, figure 1 elements 8 and 9).

9. Regarding Claim 14, Kaufman teaches utilizing a transfer function for activating a depth-dependent 3D representation (Abstract, line 3, col. 19, lines 33-45).

10. Regarding Claim 15, Kaufman teaches transfer function for the volume rendering form of a canted bar (figure 55).

11. Regarding Claim 16, the limitations of this claim has been noted in the rejection of claim 13 presented above. It is therefore rejected as set forth above.

12. Regarding Claim 17, Kaufman teaches volume rendering with a navigation system (Abstract, lines 1-11).

13. Regarding Claim 18, Kaufman teaches a computer input apparatus (figure 1, element 6).

14. Regarding Claim 19, Kaufman teaches a texture mapping (figure 31).

15. Regarding Claims 20-22, the limitations of these claims have been noted in the rejections of claim 19 presented above. They are therefore rejected as set forth above.

16. Regarding Claims 23-26, the limitations of these claims have been noted in the rejections of claim 13 presented above. They are therefore rejected as set forth above.

### ***NAME OF CONTACT***

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Lewis whose telephone number is (571) 272-4113. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

(571) 273-4113 (Use this FAX #, only after approval by Examiner, for "INFORMAL" or "DRAFT" communication. Examiners may request that a formal paper/amendment be faxed directly to them on occasions.).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/ Technology Center (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cheryl Lewis/  
Patent Examiner, A.U. 2167  
January 18, 2008